The possibility of increasing the radioresistance in animals by radiation blockers was studied. β-mercapto ethyl amine hydrochloride, hydrobromide of δ,β-amino ethyl isothiouronium bromide, and serotonin creatinine sulfate yielded positive results. This is probably due to the reduced ionization density of 660 Mev protons. Their low RBE may result from the pulse character of the proton beam, the high dose intensity, and perhaps also from the reduction of the linear-energy expenditure with increasing particle energy. This problem has still to be solved. The RBE of different radiations should be detailed as to individual body systems and different periods after irradiation. V. P. Dzhelepov and M. M. Komochkov are thanked for assistance and advice. There are 4 figures, 1 table, and 9 references: 5 Soviet and 4 non-Soviet. The four references to English-language publications read as follows: J. B. Storer, P. S. Harris et al., Radiation, Res., 6, No. 2, 188 (1957); R. Ghys, Intern. J. Rad. Biol., 2, No. 4, 399 (1960); H. M. Patt, J. W. Clarck, H. H. Vogel, Proc. Soc. Exp. Biol. and Med., 84, 1, 189 (1953); H. M. Patt, R. L. Straube, Radiation Res., 1, 2, 226 (1954).

ASSOCIATION: Institut gigiyeny truda i profzabolevaniy Akademii meditsinskikh nauk SSSR (Institute of Industrial Hygiene and Occupational Diseases of the Academy of Medical Sciences USSR)

PRESENTED: July 24, 1961, by I. I. Shmal'gauzen, Academician

SUBMITTED: July 21, 1961

ACCESSION NR: AT4033693 S/2948/63/000/005/0067/0079

AUTHOR: Korbakova, A. I.; Fedorova, V. I.

TITLE: A study of toxicity of tripropyl borane

SOURCE: AMN SSSR. Toksikologiya novy*kh promy*shlenny*kh khimicheskikh veshchestv (Toxicology of new industrial chemical substances), no. 5, 1963. Toksikologiya khimicheskikh veshchestv, primenyayemy*kh v proizvodstve plastmass, sinteticheskikh volokon i kremniyorganicheskikh soyedineniy (Toxicology of chemical substances used in the production of plastics, synthetic fibers, and silicon organic compounds), 67-79.

TOPIC TAGS: tripropyl borane, tripropyl borane toxicity, industrial safety, tripropyl borane clinical analysis

ABSTRACT: The acute and chronic toxicity of tripropyl borane (BC_9H_{21}) was studied in 125 white mice, 6 rabbits and 5 cats. The agent was administered by vapor inhalation or a single intra-abdominal injection. Analysis involved clinical symptoms of poisoning, pathomorphologic changes in organs, disorders of the nervous system, liver and kidneys, as well as a morphological change of the peripheral blood circulation. The absolute lethal dose by injection was 1200 mg/kg, tolerated dose 400 mg/kg by injection and 1 to 2 mg/liter

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ACCESSION NR: AT4033693

by inhalation and the MRD 0.01 mg/liter, based on conditioned reflexes in cats. Symptoms included slight irritation of the mucous membrances of the eyes and upper respiratory tract, as well as respiratory disorders. Patho-anatomical changes were present in the form of vascular disorders (plethora of internal organs, perivascular edema), thickening of the alveolar septa and dystrophic changes in the liver and kidneys. Prolonged exposure to fumes at concentrations of 0.001 to 0.005 mg/liter did not result in the accumulation within the organism. The authors tentatively recommend 0.003 mg/liter as the maximum allowable concentration of tripropyl borane fumes in the atmosphere of industrial facilities.

ASSOCIATION: AMN SSSR

SUMMITTED: 00 DATE ACQ: 27Feb64 ENCL: 00

SUB CODE: LS NO REF SOV: 000 OTHER: 002

Card 2/2

PAVLOVA, I.V.; FEDOROVA, V.I.

Some aspects of nitrogen and oxidative metabolism in the lungs of experimental animals with silicosis. Vop. med. khim. 9 no.4: 356-362 Jl-Ag '63 (MIRA 17:4)

1. Biochimicheskaya laboratoriya i patologoanatomicheskaya laboratoriya Instituta gigiyeny truda i professional'nykh zabolevaniy AMN SSSR, Moskva.

NEVZOROVA, T.A., dotsent; ZAYEVA, G.N., kand. med. nauk; TOLGSKAYA, M.S., doktor med. nauk; FEDOROVA, V.I., kand. med. nauk

Clinical and experimental analysis of the effect of aminazine. Trudy 1-go MMI 21:18-31 '63. (MIRA 17:12)

1. Kafedra psikhiatrii, 1-y Moskovskiy ordena Lenina meditsinskiy institut imeni I.M.Sechenova (zav. kafedroy prof. V.M.Banshchikov), patologo-anatomicheskaya i toksikologicheskaya laboratoriya Instituta gigiyeny truda i professional'nykh zabolevaniy AMN SSSR (sav.-prof. P.P.Dvizhkov i prof. A.A.Kanarevskaya).

GEL'FON, I.A.; FEDOROVA, V.I. (Moskva)

Changes in the protein fractions of the blood and histamine under the effect of amorphous and crystalline silicon dioxide; experimental research. Arkh. Pat. 25 no.6:45-52 '63. (MIRA 17:1)

1. Iz patologoanatomicheskoy laboratorii (zav. - prof. P.P. Dvizhkov) i biokhimicheskoy laboratorii (zav. - starshiy nauchnyy sotrudnik I.V. Pavlova) Instituta gigiyeny truda i professional'nykh zabolevaniy (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A. Letavet) AMN SSSR.

KORBAKOVA, A.I.; FEDOROVA, V.I.

Testing the toxicity of α-methylstyrol. Tokс. nov. prom. i san. veshch. no.6:6-18 '64.

Toxicology of isoprene. Ibid.:18-29 (MIRA 18:4)

FEDOROVA, V.I.; KOCHNEVELL, I.F.

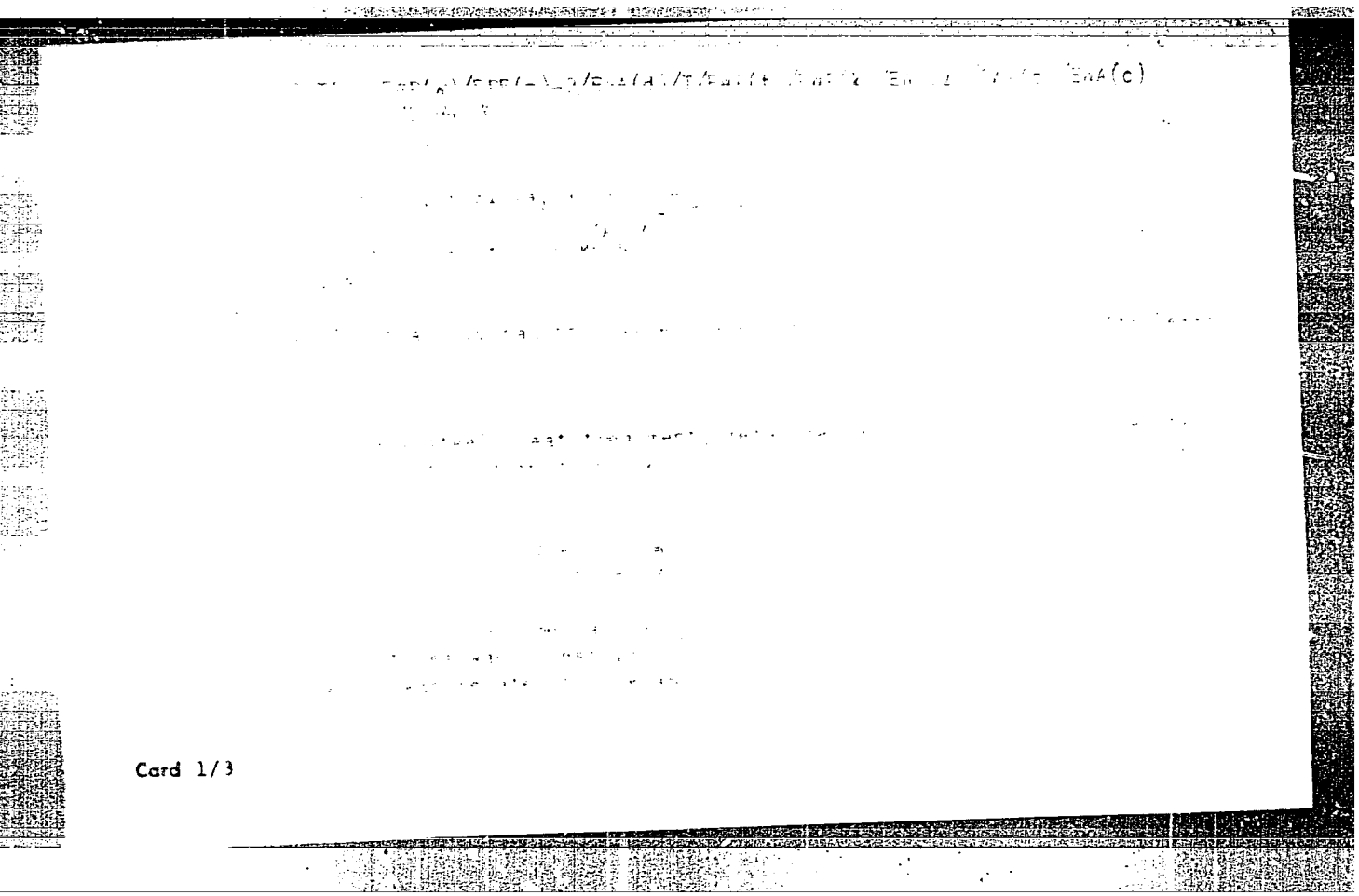
Pneumokoniosis caused by nitron dust. Gig. i san. 29:225-231 '64
(MIRA 18:2)

1. Institut gigiyeny truda i professional'nykh zabolevaniy AMN SSSR.

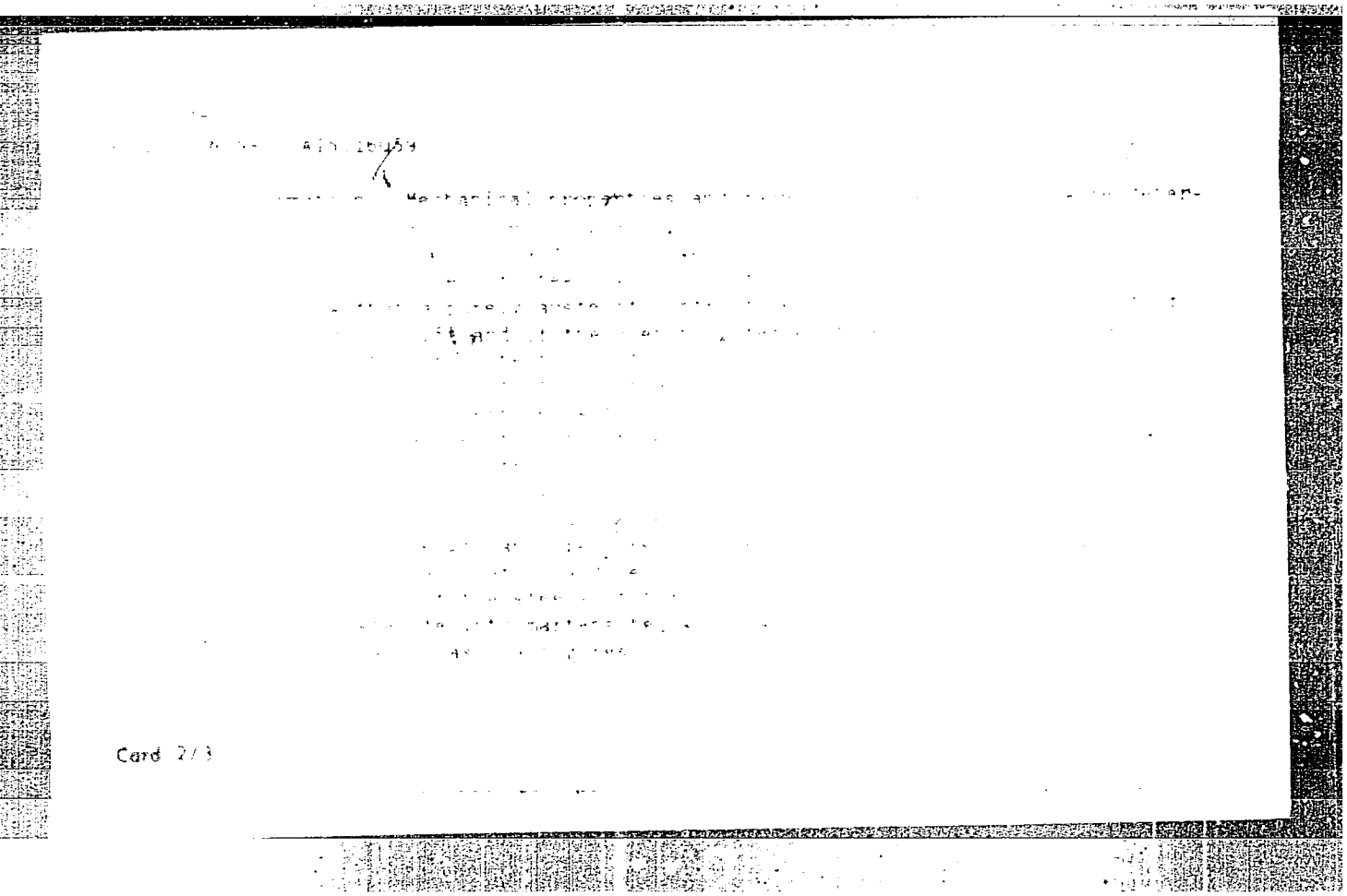
LEVINA, M.Ye.; FEDOROVA, V.I.

Phase transitions and heats of dissolution of $NaBeF_3$. Ukr. khim. zhur. 30 no.9:925-928 '64. (MIRA 17:10)

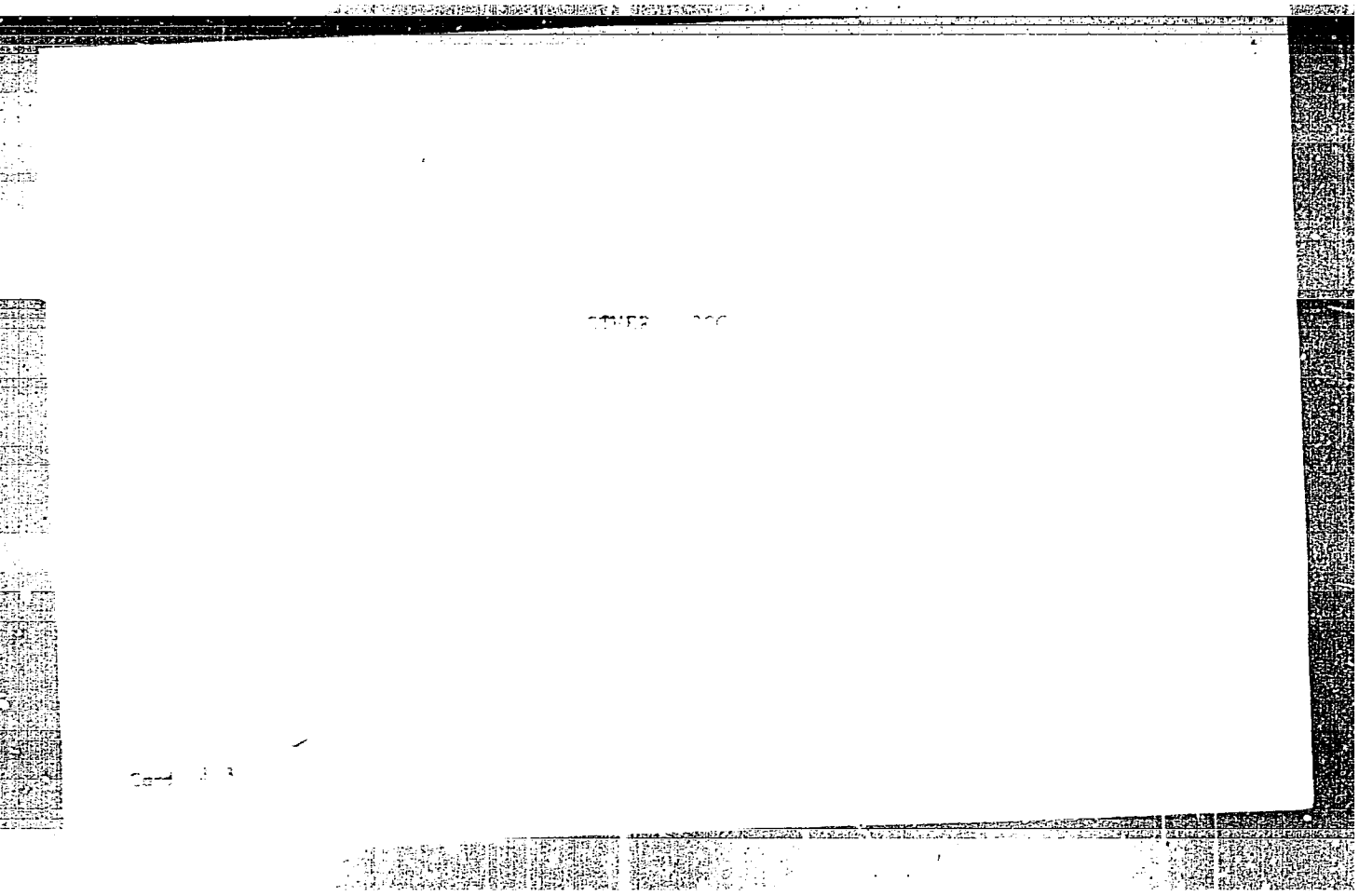
1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.



Card 1/3



Card 2/3



(N) L 12093-66 EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c)

ACC NR: AP6000604 SOURCE CODE: UR/0129/65/000/012/0014/0019

LJP(c) JD/HM/HW/JG

AUTHOR: Ul'yanin, Ye. A.; Babakov, A. A.; Fedorova, V. I.

ORG: TsNIIChERMET

TITLE: Properties of chromium-manganese steel with nitrogen at low temperatures

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 12, 1965, 14-19, and bottom half of insert facing p. 41

TOPIC TAGS: chromium steel, manganese steel, nitrogen, impact strength, brittleness

ABSTRACT: These properties were investigated at temperatures reaching -196°C for two series of laboratory melts with various contents of Cr and N (19.9-22.0% Cr, 0.24-0.35% N) and identical contents of all the other alloy elements (0.035-0.05% C, 0.38-0.51% Si, 5.9-6.17% Mn, 4.99-5.18% Ni, 0.003-0.007% P and 0.007-0.013% S). The steels with 0.32-0.35% N have an austenitic structure to 1200°C, and the steels with 0.24-0.26% N, an austenitic-ferritic structure containing up to 30% δ-ferrite, with the content of δ-ferrite being the greater the higher the amount of ferrite-forming Cr in the steel. Tensile tests at room temperature showed that all the melts have high mechanical properties after quenching from 1050 and 1200°C. At +20 and -196°C N-containing Cr-Mn steel displays high strength, plasticity and impact toughness; thus the presence of as much as 30% of δ-ferrite in this steel does not appreciably

Card 1/2 UDC: 620.17:669.15-194:669.26'74

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ACC NR: AP6000604

affect its mechanical properties. If the content of δ-ferrite is smaller than 15%, it apparently exerts a positive effect, since it reduces proneness to the growth of austenite grain during high-temperature hardening. Moreover, small amounts of δ-ferrite in austenitic steel enhance its weldability. The steel investigated is prone to embrittlement when heated at 500-800°C and hence to a decrease in its strength, plasticity and impact toughness. The proneness of steel to embrittlement during tempering is determined by its C content. Melts containing 0.010% C do not get embrittled during tempering. The brittleness of austenitic Cr-Ni-Mn steel during 700-800°C tempering is caused by the segregation of the $M_{23}C_6$ carbide along grain boundaries. Orig. art. has: 4 tables, 5 figures.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 000

Card 2/2

L 04656-67 EWP(k)/EWT(m)/T/EWP(v)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6014435 (N) SOURCE CODE: UR/0125/65/000/012/0012/0017

AUTHORS: Fartushnyy, V. G.; Kakhovskiy, N. I.; Babakov, A. A.; Fedorova, V. I. 42 41

ORG: [Fartushnyy, Kakhovskiy] Institute of Electro-Welding im. Ye. O. Paton, AN UkrSSR (Institut elektrosvarki AN UkrSSR); [Babakov, Fedorova] TsNIIChM B

TITLE: Austenitic chromium-manganese-nitrogen steel and its welding technology 14 4

SOURCE: Avtomaticheskaya svarka, no. 12, 1965, 12-17

TOPIC TAGS: steel, austenitic steel, alloy steel, metal welding, weldability, automatic welding, seam welding/ Kh17AG14 steel, ST-3 steel

ABSTRACT: A technique for welding steel Kh17AG14 14 and a combination of the latter with steel St3 in the presence of flux and of different inert gases (CO_2, argon) was developed. In addition, the usual mechanical properties and magnetic permeability, as well as the microstructure, of the steel Kh17AG14 were determined. The experimental results are presented in graphs and tables (see Fig. 1). It was found that steel Kh17AG14 possesses high plasticity but tends towards embrittlement in the temperature interval 600--800C. Welding of the steel should be carried out with electrodes having the same composition as the steel or, in some cases, with the OKh18N9FBS rod. Welding of the combination Kh17AG14 -- St3 may be carried out 18

Card 1/2 UDC: 621.791 (756+856):669.140

L 04656-67

ACC NR: AP6014435

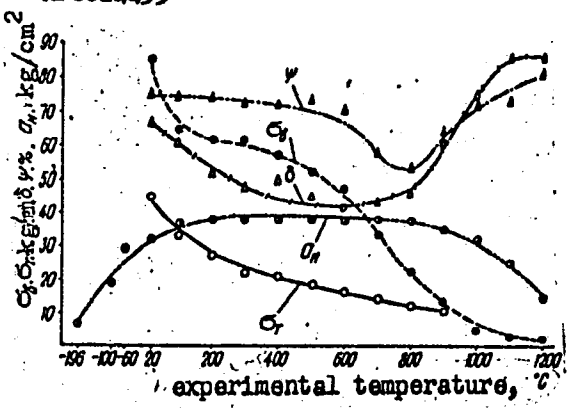

Fig. 1. Change in the mechanical properties of the steel Kh17AG14, as a function of the experimental temperature.

with Cr-Ni-Mn 20-9-7, Cr-Ni 18-8, or EA-2 type electrodes. The authors thank G. P. Manzheley for carrying out the carbide analysis. Orig. art. has: 4 tables and 6 graphs.

SUB CODE: 13, 11/ SUBM DATE: 24Sep65/ ORIG REF: 006/ OTH REF: 002

kh

Joining of dissimilar metals 18

Card 2/2

UL'YANIN, Ye.A.; BABAKOV, A.A.; FEDOROVA, V.I.

Properties at low temperatures of chromium-manganese steel with nitrogen. Metalloved. i term. obr. met. no. 12:14-19 D '65. (MIRA 18:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni Bardina.

ZAYEVA, G.N.; BABINA, M.D.; FEDOROVA, V.I.; SHCHIRSKAYA, V.A.

Toxicological characteristics of polyvinyl alcohol, polyethylene, and polypropylene. Toks. nov. prom. khim. veshch. no.5:136-149 '63. (MIRA 17:9)

1. Sotrudniki laboratorii promyshlenno-sanitarnoy khimii Institu'a gigiyeny truda i professional'nykh zabolevaniy AMN SSSR (for Babina, Shchirskaya.)

FD-[illegible]/FSTC-VII

ACCESSION NR: AT4042722 S/0000/63/000/000/0510/0514

AUTHOR: Yarmonenko, S. P.; Kurlyandskaya, E. B.; Avrunina, G. A.; Gaydova, Ye.S.; Govorun, R. D.; Orlyanskaya, R. L.; Paly*ga, G. F.; Ponomareva, V. L.; Fedorova, V. I.; Shmakova, N. L.

TITLE: Reactions to radiation an chemical protection of animals subjected to the effects of high-energy protons

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963. Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy* konferentsii. Moscow, 1963, 510-514

TOPIC TAGS: corpuscular radiation, high energy proton, synchrocyclotron, gamma ray, radiation effect, radioprotective agent, RBE

ABSTRACT: Experiments were performed to determine the immediate and the delayed effects of high-energy protons and their RBE on animal organisms. High-energy protons of 660 Mev were generated on a synchrocyclotron. Comparative tests using gamma rays from a Co^{60} source were used in establishing the RBE. Nonpure strain mice and rats were used, in addition to mice of the BALB and C-57Bl strains.

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ACCESSION NR: AT4042722

All materials were subjected to statistical analysis. In comparative experiments performed on rats subjected to a dose of 500 rad, the degree of injury to hemopoietic organs by protons was considerably less than injury caused by gamma radiation. The depression of hemopoiesis in the bone marrow and the spleens of animals irradiated by protons was less profound and less prolonged, and regenerative processes began earlier than in injuries produced by produced by gamma rays. This difference of effect was particularly clear in the dynamics of the peripheral blood. After exposure to gamma irradiation, a profound and prolonged anemia developed, accompanied by a loss of 44% of the erythrocytes and 51% of the hemoglobin. An equivalent dose of protons caused only insignificant lowering of these indices. Similar effects were observed in the white blood corpuscles, particularly in respect to neutrophiles. The results obtained confirm that the condition of peripheral blood does not reflect the true depth of radiation damage to hemopoiesis. In experiments with white mice, a study was made of early destructive changes in the brain marrow, the dynamics of mitotic activity, and the kinetics of cells with chromosomal injuries. Exposure to protons induced typical radiation degeneration of cells of the bone marrow, a slowing down of mitotic activity, and injuries to the chromosomes. A strong linear relationship of injury-to-dose was

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ACCESSION NR: AT4042722

observed in all three indices within the 250--1000 rad range. Exposure to equivalent doses of gamma rays produced more pronounced changes, indicating that the RBE of protons is equivalent to 0.5--0.7. Preliminary administration of radioprotective agents -- AET (S,β-aminoethylisothioronium), MEA (mercaptoethylamine), and 5-MOT(5-methoxytryptamine) -- diminished the number of degenerating and aberrant cells in the bone marrow in proportion to the effect of the indicated drugs on survival. The most effective appeared to be a combination of MEA and 5-MOT, whose use assured the survival of 50% of the mice when irradiated by doses of 1900 rad. If irradiation is fractionated, the protective effect of the drugs is reduced sharply, or it disappears altogether. In experiments on male mice of the BALB strain subjected to doses of 500 and 700 rad, reversible changes were observed in the weight of testicles. The change of weight and its subsequent recovery was due to the death and the subsequent regeneration of germ cells. Protons have a typical sterilizing effect on the genitalia, but their RBE, in comparison with gamma rays, lies between 0.6 and 0.7. The use of antiradiation drugs did not prevent the sterilizing action of protons, but it caused a somewhat smaller loss of weight of the testicles and produced a shorter period of sterility. White male mice which had been protected by AET, MEA, 5-MOT, and cystamine from the effects of proton doses of 1300--1600 rad recovered their generative functions

Card 3/5

ACCESSION NR: AT4042722

almost completely four to seven months after irradiation. The development of the first generation of 290 mice obtained by crossing the protected and irradiated males with intact females took place without visible somatic injuries. The relative effectiveness of protons and gamma rays in causing somatic mutations was studied on livers of white rats who were subjected to doses of 150 rad. Regeneration of the liver was induced by removing the large left and the front right lobes of the liver. The operation was performed 24 hours after irradiation. The animals were killed 30 hours after the operation, i. e., during the first wave of the increase of mitotic activity. Control animals had 6.9% of aberrant cells, while after irradiation by protons and gamma rays, the number of aberrant cells was 20% and 29%, respectively. This indicates that the RBE of protons in respect to somatic mutations is around 0.7. New data were obtained on the blastomogenic effect of protons. Out of 85 irradiated rats, tumors were found in 39. Twenty-five of them had multiple tumors in various locations. In experiments on non-pure strain white mice, it was possible to show that antiradiation drugs, while increasing the ratio resistance of the animals, do not prevent subsequent development of new growth. Out of 65 irradiated mice who died at various periods after exposure to protons in doses from 1300 to 1500 rad (after having previously received antiradiation protection), fourteen had leucosis and four had sarcoma.

Card 4/5 SUBMITTED: 27 SEPT 63

ZAYEVA, G.N.; FEDOROVA, V.I.

Toxicology of higher saturated monoatomic alcohols (n-hexyl, n-heptyl, n-octyl, n-nonyl and n-decyl). Toks. nov. prom. khim. veshch. no.5: 51-66 '63. (MIRA 17:9)

1. Sotrudnik patologoanatomicheskoy laboratorii Instituta gigiyeny truda i professional'nykh zabolevaniy AMN SSSR (zav. - prof. P.P. Dvizhkov) (for Fedorova).

KORBAKOVA, A.I.; FEDOROVA, V.I.

Study of the toxicity of tripropylboron. Toks. nov. prom. khim. veshch. no.5:67-79 '63. (MIRA 17:9)

USSR/Chemistry - Ammonium nitrate

FD-510

Card 1/1 : Pub. 50-9/23

Authors : Fedorova, V. K., Gernet, D. V., and Matkovskiy, A. N.

Title : Improvement of the quality of non-caking ammonium nitrate

Periodical : Khim. prom., 296 (40), Jul/Aug 1954.

Abstract : Report that a chemical combine (name not given) has been using since 1951 the inorganic additive "RAP" (composition not given) to prevent caking of ammonium nitrate. The use of organic additives has been discontinued as potentially dangerous. Ammonium nitrate treated with "RAP" proved satisfactory in agricultural use, including dispersion by seeding machines together with seeds and and dispersion from planes.

Institution :

Submitted :

FEDOROVA, V. K.

USSR/Chemistry - Packaging and handling FD-516

Card 1/1 : Pub. 50-15/23

Authors : Matkovskiy, A. N., Shcherbakov, M. A., and Fedorova, V. K.

Title : Experience in the use of sewing machines to seal bags.

Periodical : Khim. prom., 303 (47), Jul/Aug 1954

Abstract : Describe the use of special sewing machines to seal paper bags in which ammonium nitrate is packed at one of the chemical combines (name not given).

Institution :

Submitted :

18.1245

S/128/60/000/001/002/007
A133/A127

AUTHORS: Krymov, V. V., Nikol'skaya, Ye. M., Tikhonova, V. V., Fedorova, V. K.

TITLE: Production of foundry magnesium alloys containing zirconium

PERIODICAL: Liteynoye proizvodstvo, no. 1, 1960, 23-25

TEXT: The article deals with various magnesium alloys to which zirconium had been added to reduce the grain size and to render improved mechanical properties of alloy castings. Investigations have been carried out to find an optimum method for adding zirconium to foundry magnesium alloys at a ratio of at least 0.6%. This is a difficult technological problem owing to the high chemical activity, high melting point, considerable specific weight (6.4)and low solubility of zirconium. Two test series were carried out. In the first, zirconium was added in the form of potassium fluorozirconate, in the second, zirconium was added in the form of foundry alloy, as virgin metal (100%), secondary metal (100%) or in a combined

form (70% virgin, 30% secondary metal). Test results obtained in the first series indicated that the composition of the working alloy, after remelting, is not constant. Thereby, the zirconium content considerably decreased, and the addition of zirconium in the form of fluorine salts increased the danger for the foundrymen. An analysis of the second series proved that the simplest and most dependable method involves the use of a blended foundry alloy whereby zirconium is obtained through reduction by means of magnesium from a melt of potassium fluorozirconate and carnallite. In this case, carnallite, equaling 25% of the weight of the charge, is put into a crucible and heated to 730-750°C, held until bubbling stops to provide conditions for adding 50% potassium fluorozirconate in small portions. When the latter dissolved, magnesium, melted in an other crucible, is added. Simultaneously, the temperature is increased to 780-800°C and the charge is thoroughly stirred. Such a foundry alloy contains 20-35% zirconium in the dissolved state and 10-15% elementary zirconium with a total zirconium content between 30-50%. The

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Production of foundry magnesium alloys...

following factors have been investigated: the effect of the added foundry alloy on the mechanical properties of an alloy melted from a 100% virgin metal; the effect of repeated remelting without any refining on the zirconium content of the alloy and its mechanical properties; the effect of adding different amounts of foundry alloys on the Zr content and the mechanical properties of an alloy melted from 70% secondary and 30% virgin metal. Testing the mechanical properties of the МЛ12(ML12) alloy as to the effect of its Zr content it was found that an increased Zr content raises the strength limit, and in particular, the yield point of the alloy. High and stable properties have been attained with an addition of 7.5 - 10% foundry alloy. At repeated remelting without any further addition of foundry alloy the Zr content somewhat decreases but comes still close to 0.6 %, simultaneously ensuring high-level anti-corrosion properties. Based on these studies the following melting technology is recommended: the charge will consists of МГ1 (MG1) bar magnesium, zinc bars of a grade not lower than Ц2(Ts2), alloying rare-earth metals or thorium, magnesium-zirconium foundry alloy (30-50% Zr) and secondary

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metal. The charge is calculated for a 2.5% Zr content; zinc and rare earth metal content is rated at median values and as to the thorium content the upper limit has been considered. The amount of the foundry alloy is calculated in the following way, depending on the composition of the charge:

Composition of the charge	Foundry alloy added
100% virgin metal	7.5 %
60-80% secondary metal + 20-40% virgin metal	7.5 % of the weight of the virgin metal and 2% of the weight of the secondary metal
100% secondary metal	2 %

In the melting process ВИ2 (VI2) and ВИ3 (VI3) type fluxes are used. Zinc is added after melting and reheating of magnesium up to 700-720°C. After refining and overheating at 780-800°C the contaminated flux is removed from the surface of the melt and foundry alloy is added in corresponding portions. Thereby, melting temperature has to

Production of foundry magnesium alloys... S/128/60/000/001/002/007
A133/A127

be maintained at 760°C and must not be lower while reheating temperatures have to be above 800°C. After having added the foundry alloy fresh flux is put on the surface of the melt, the melt is held for 10-15 minutes and then poured at 740-780°C. The quality of the melt so prepared is determined by technological break test samples and from the results of spectrum analysis. When preparing the charge it is necessary to use well-cleaned crucibles and any aluminum or МЛ5 (ML5) or МЛ4 (МЛ4) alloy residues should be avoided. There is 1 figure and 5 tables.

Card 5/5

CA

Contents of carnosine, anserine, histidine, and β-alanine in skeletal muscle of hens during embryonic development. S. B. Severin and V. N. Fedorova. *Doklady Akad. Nauk S.S.S.R.* 82, 443-6(1952).—The chromatographic method was used for the detn. of the above substances in leg muscles of embryos from the age of 10 days to hatching. Carnosine appears on the 14th day, anserine on 17th. Histidine is present from the early days, while β-alanine is apparent from 10th day on. Histidine declines sharply after the 18th day, while β-alanine shows a slow decline throughout the period. The other components show a steady rise. O. M. K.

1. BALAKHOVSKIY, S. D.: DROZDOVA, N. N.: FEDOROVA, V. N.

2. USSR (600)

4. Carotenoids

7. Reaction between carotenoids and copper. Dokl. AN SSSR 87 no. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

BALAKHOVSKIY, S.D.; DROZDOVA, N.N.; FEDOROVA, V.N.

Effect of carotene on the oxidation of ascorbic acid in the presence of copper. Biokhimiya 18, 112-19 '53. (MLRA 6:1)
(CA 47 no.16:8132 '53)

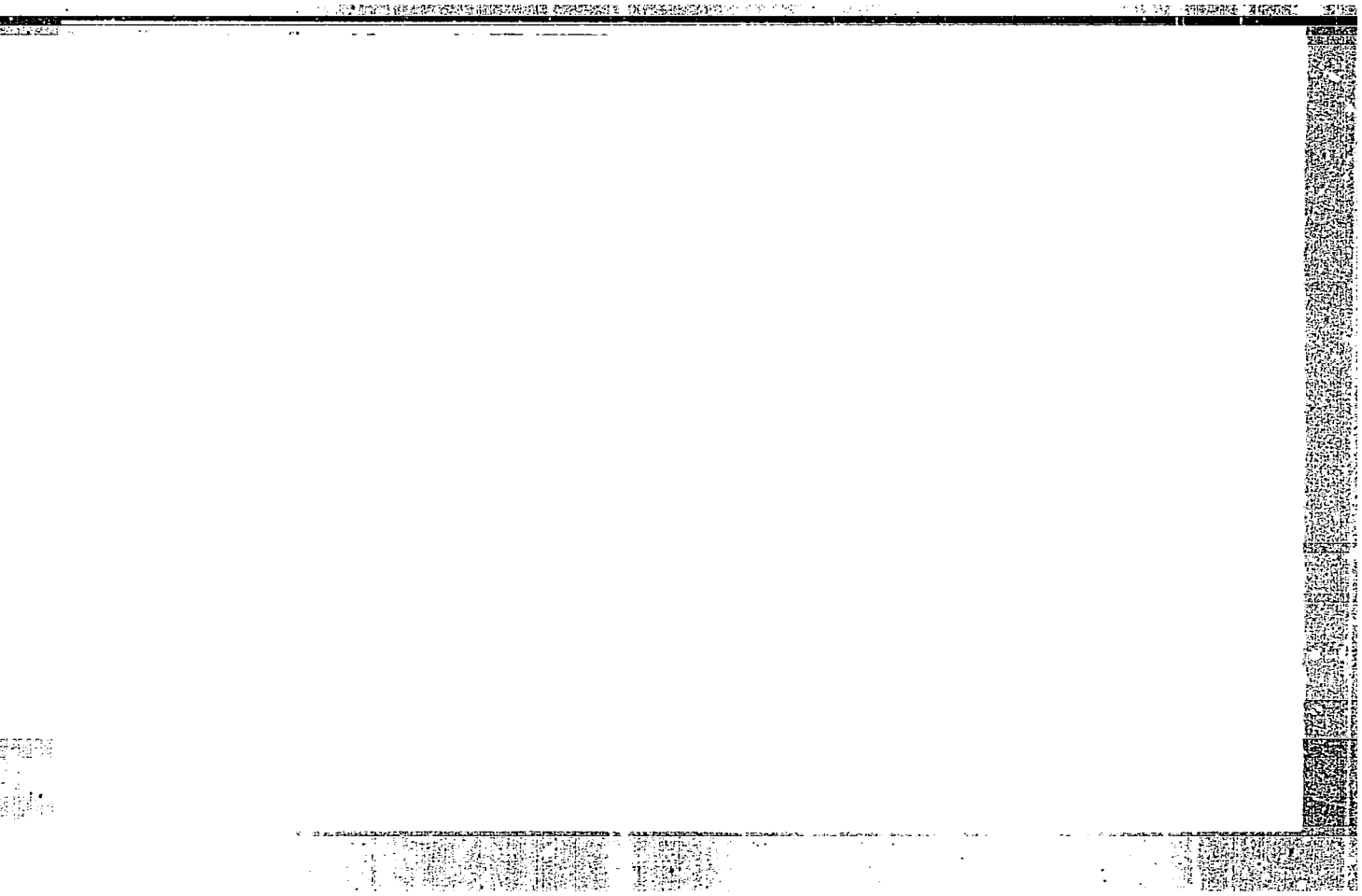
1. A.N.Bakh Biochem. Inst., Moscow.

FEDOROVA, V. N.

(13)

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Biological Chemistry

Physiological action of substances obtained as a result of oxidation of carotene (antihistamine and antiacetylcholine activity of retinene). S. D. Balakhovskii, D. E. Ryvkina, and V. N. Fedorova. *Doklady Akad. Nauk S.S.R.* 93, 869–70(1953); cf. *C.A.* 41, 517[illegible], 47, 7103g.—Oxidation of carotene with MnO_2 in t. dark or in red light gave retinene in 60% yields, which in soln. showed no traces of carotene spectrophotometrically (detn. of retinene was done by optical d. at 385 mμ). The material must be freshly prepd. for biol. tests since the aq. solns. darken and spoil rapidly. Tested on isolated swine-intestine strips, the purified specimens have high antihistaminic and antiacetylcholine activity at 10^{-6} diln. Activity drops to zero at 10^{-9} diln.
G. M. Kosolapoff



APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00041271(

FEDOROVA, V.N., doktor pedagogicheskikh nauk

Connection between the botany course and the work of students on plant breeding. Biol. v shkole no.5:8-12 S-O '61. (MIRA 14:9)

1. Institut obshchego i politekhnicheskogo obrazovaniya Akademii pedagogicheskikh nauk RSFSR.
(Botany--Study and teaching)

FEDOROVA, V.N.; SHALAYAEV, V.F.

Conducting experimental and practical work on agriculture in connection with the biology course. Biol. v shkole no.5:50-53 S-O '61. (MIRA 14:9)

1. Institut obshchego i politekhnicheskogo obrazovaniya Akademii pedagogicheskikh nauk RSFSR.
(Agriculture—Study and teaching)

FEDOROVA, V. N.

"Botany Textbooks in the Russian Secondary School," Thesis for degree of Cand. Biological Sci. Sub 22 May 50, Moscow City Pedagogical Inst imeni V. P. Potemkin.

Summary 71, 4 Sept 52. Dissertations Presented for Degrees in Sci. and Engi. in Moscow in 1950. From Vechernyaya Moskva. Jan-Dec 1950.

FEDOROVA, M. N. (Reviewer)

"Shortcomings of 'Methods of Teaching Zoology'," by N. A. Rykov, Est. v shkole, No.4, 1952

FEDOROVA, V.N., kandidat pedagogicheskikh nauk.

Educational significance of agricultural work for students. Mat.v shkole no. 3-11 S-O '53. (MLRA 6:8)

1. Kazanskiy gosudarstvennyy pedagogicheskiy institut.
(Agriculture--Study and teaching)

FEDOROVA, V.N., kandidat biologicheskikh nauk.

Books on the use of practical application. Est.v shkole no.2:88-93 Mr-Ap '54. (MLRA 7:3)

1. Kazanskiy gosudarstvennyy pedagogicheskiy institut.
(Education of children)

FEDOROVA, V.N., kandidat pedagogicheskikh nauk.

Study of the laws of biology and instruction from the point of view of practical application. Est.v shkole no.6:33-41 N-D '54.(MLRA 7:12)

1. Kazanskiy gosudarstvennyy pedagogicheskiy institut.
(Biology--Study and teaching)

FEDOROVA, V.N., kandidat pedagogicheskikh nauk.

Problem of teaching in the "Methodology of teaching human anatomy and physiology" by E.P.Brunovt. Reviewed by V.N.Fedorova. Est. v shkole no.2:90-94 Mr-Ap '56. (MLRA 9:7)

1.Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni V.I.Lenina.
(Physiology--Study and teaching) (Anatomy, Human--Study and teaching) (Brunovt, E.P.)

FEDOROVA, V.N., kandidat pedagogicheskikh nauk.

"Zoology teaching methods." A.A. Likhontov, M.A. Plerova. Reviewed by V.N. Fedorova. Est. v shkole no.5:83-89 S-O '56. (MLRA 9:10)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni V.I. Lenina. (Zoology--Study and teaching)

SKATKIN, M.N.; FEDOROVA, V.N., kandidat pedagogicheskikh nauk.

Polytechnical training in the biology course. Biol.v shkole no.4:7-15 Jl-Ag '57. (MLRA 10:8)

1.Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR (for Skatkin).
(Agriculture--Study and teaching)

FEDOROVA, V.N., kandidat pedagogicheskikh nauk.

Biology teaching in Soviet schools. Biol. v shkole no.5:9-18 S-O '57. (MLRA 10:9)

1. Institut metodov obucheniya Akademii pedagogicheskikh nauk RSFSR.

(Biology--Study and teaching)

FEDOROVA, V.N., kand. ped. nauk.

On B.E. Raikov's book "Valerian Viktorovich Polovtsov, his life and works." Biol. v shkole no.6:89-91 '57. (MIRA 10:12)

1. Institut metodov obucheniya APN RSFSR.
(Polovtsov, Valerian Viktorovich, 1862-1918)
(Raikov, B.E.)

FEDOROVA, Vera Nikolayevna; GERASIMOV, V.P., red.; FEDOTOVA, A.F., tekhn. red.

Development of methods in the natural sciences in Russia before the Revolution] Razvitie metodiki estestvoznaniia v dorevoliutsionnoi Rossii. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1958. 431 p. (MIRA 11:5)
(Science--Methodology)

FEDOROVA, V.N., kand.ped.nauk

N.K. Krupskaia on the teaching of natural history. Biol. v shkole no.2:8-13 Mr-Ap '58. (MIRA 11:4)

1. Institut metodov obucheniya APN RSFSR.
(Krupskaia, Nadezhda Konstantinovna, 1869-1939)
(Natural history--Study and teaching)

POLONSKAYA, E.R., uchitel'nitsa; FEDOROVA, V.N., kand.ped.nauk

Testing the knowledge of students acquired in studying the subject "Cellular structure of plants." Biol. v shkole no.4: 17-22 Jl-Ag '58. (MIRA 11:9)
(Botany--Study and teaching) (Plant cells and tissues)

FEDOROVA, V.N., kand. pedagog. nauk

First lessons in plant study. Biol. v shkole no.4:23-31 Jl-Ag '59. (MIRA 12:11)

1. Institut metodov obucheniya Akademii pedagogicheskikh nauk RSFSR.
(Botany--Study and teaching)

FEDOROVA, V.N., kand.pedagogicheskikh nauk

Lessons on the topic "The plant as a living organism." Biol.v shkole no.2:12-18 Mr-Ap '60. (MIRA 13:8)

1. Institut metodov obucheniya Akademii pedagogicheskikh nauk RSFSR.
(Botany--Study and teaching)

FEDOROVA, V.N.

Let's educate them through work and for work! Biol. v shkole no.2: 11-18 Mr-Ap '63. (MIRA 16:4)

1. Institut obshchego i politekhnicheskogo obrazovaniya Akademii pedagogicheskikh nauk RSFSR.
(Makarenko, Anton Semenovich, 1888-1939)

MYSHLYAYEVA, N.A., kand.sel'skokhozyaystvennykh nauk; FEDOROVA, V.N., kand.ped.nauk

Lessons in studying the subject "Roots. Absorption of water and mineral substances from the soil." Biol.v shkole no.5:34-41 S-O '59. (MIRA 13:8)

1. Institut metodov obucheniya APN RSFSR.
(Botany--Study and teaching)
(Roots (Botany))

FEDOROVA, V.N., starshiy nauchnyy sotr.; MYSHLYAYEVA, N.A., mlad. nauchnyy sotr.; GRIGOR'YEVA, N.P., mlad. nauchnyy sotr.; KIVOTOV, S.A., zasl. uchitel shkoly RSFSR; SHADRINA, M.S., red.; NOVOSELOVA, V.V., [illegible]n. red.

[Tie between teaching botany and the work of students in plant growing]Sviaz' obucheniia botanike s trudom uchashchikhsia po rastenievodstvu. Pod red. V.N.Fedorovoi. Moskva, Izd-vo Akad. pedagog.nauk RSFSR, 1962. 146 p. (MIRA 15:9)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut obshchego i politekhnicheskogo obrazovaniya.
(Botany--Study and teaching)

FEDOROVA, V.N., doktor pedagogicheskikh nauk

Importance of a biology course for scientific and materialistic education of students. Biol. v shkole no.3:10-16 My-Je '62. (MIRA 15:7)

1. Institut obshchego i politekhnicheskogo obrazovaniya Akademii pedagogicheskihk nauk RSFSR.
(Biology—Study and teaching) (Communist education)

FEDOROVA, V.N. (Leningrad); NEDOSHIVIN, O.A. (Leningrad)

Selection of a formula for the speed of sound in the mass mechanized processing of materials of deep-sea hydrologic observations. Okeanologiia 5 no.2:359-363 '65.

(MIRA 18:6)

FEDOROVA, V.P.; NOGTEVA, N.Ya.

Sodium alginate sizing. Tekst.prom. 17 no.2:51 F '57. (MLRA 10:2)

1. Zaveduyushchiy laboratoriyey fabriki BIM (for Fedorova). 2. Nachal'nik prigotovitel'nogo otdela fabriki BIM (for Nogteva).
(Sizing (Textile))

KARYAKIN, R.N., kand.tekhn.nauk; FEDOROVA, V.P., inzh.

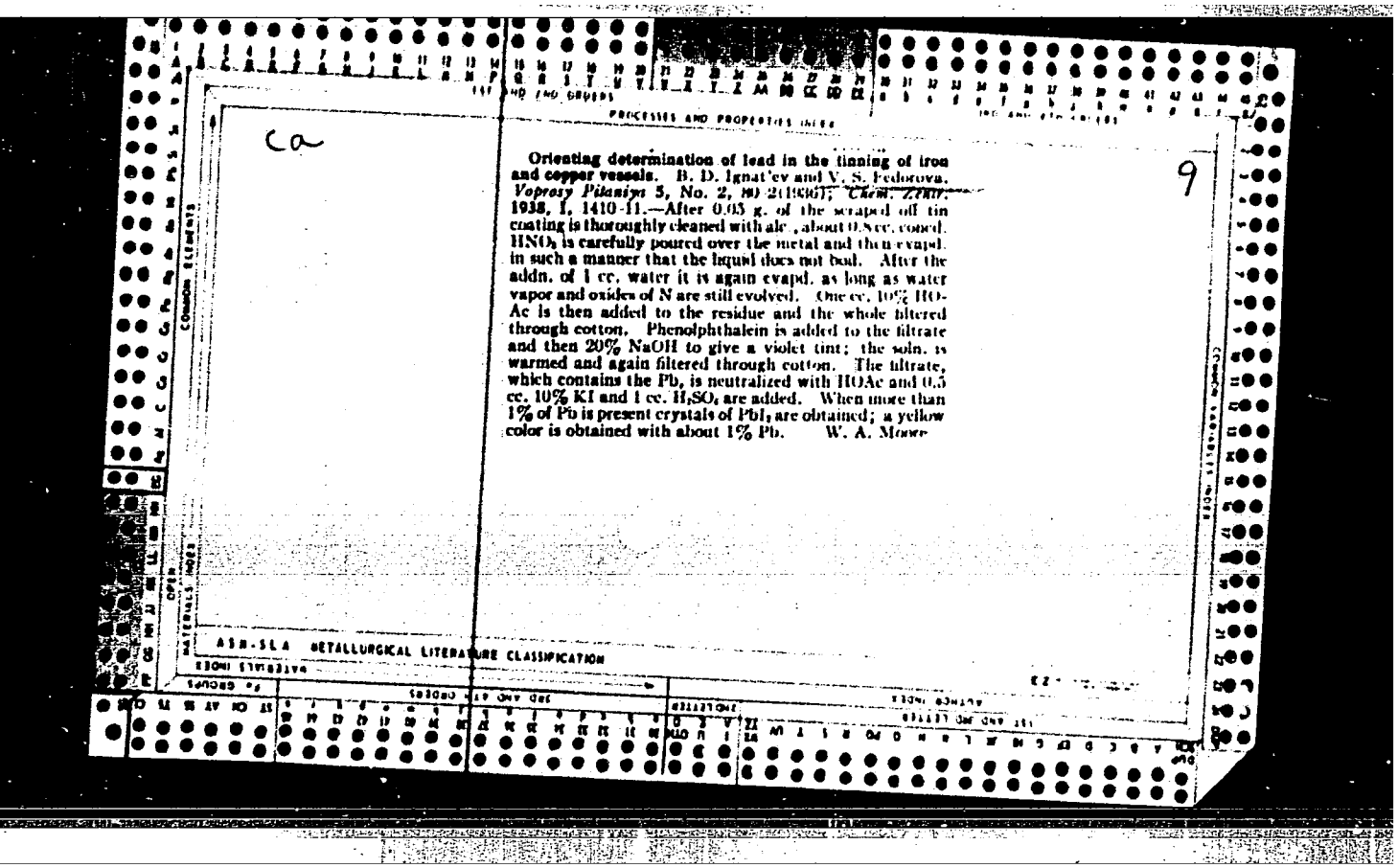
Analysis of the stability of the resistance of a traction network. Trudy TSNII MPS no.256:28-42 '63. (MIRA 16:6)
(Electric railroads--Current supply)
(Electric railroads--Wires and wiring)

FEDOROVA, V.P. (Moskva)

Dual characteristics of the completion and completeness of a uniform space. Mat. sbor. 64 no.4:631-639 Ag '64.
(MIRA 17:11)

LEVKOVSKAYA, I.S.; YUVACHEVA, N.Ya.; FEDOROVA, V.S., red.

[Patents] Patentnoe delo. Leningrad, 1963. 19 p.
(MIRA 16:10)
(Bibliography—Patents)

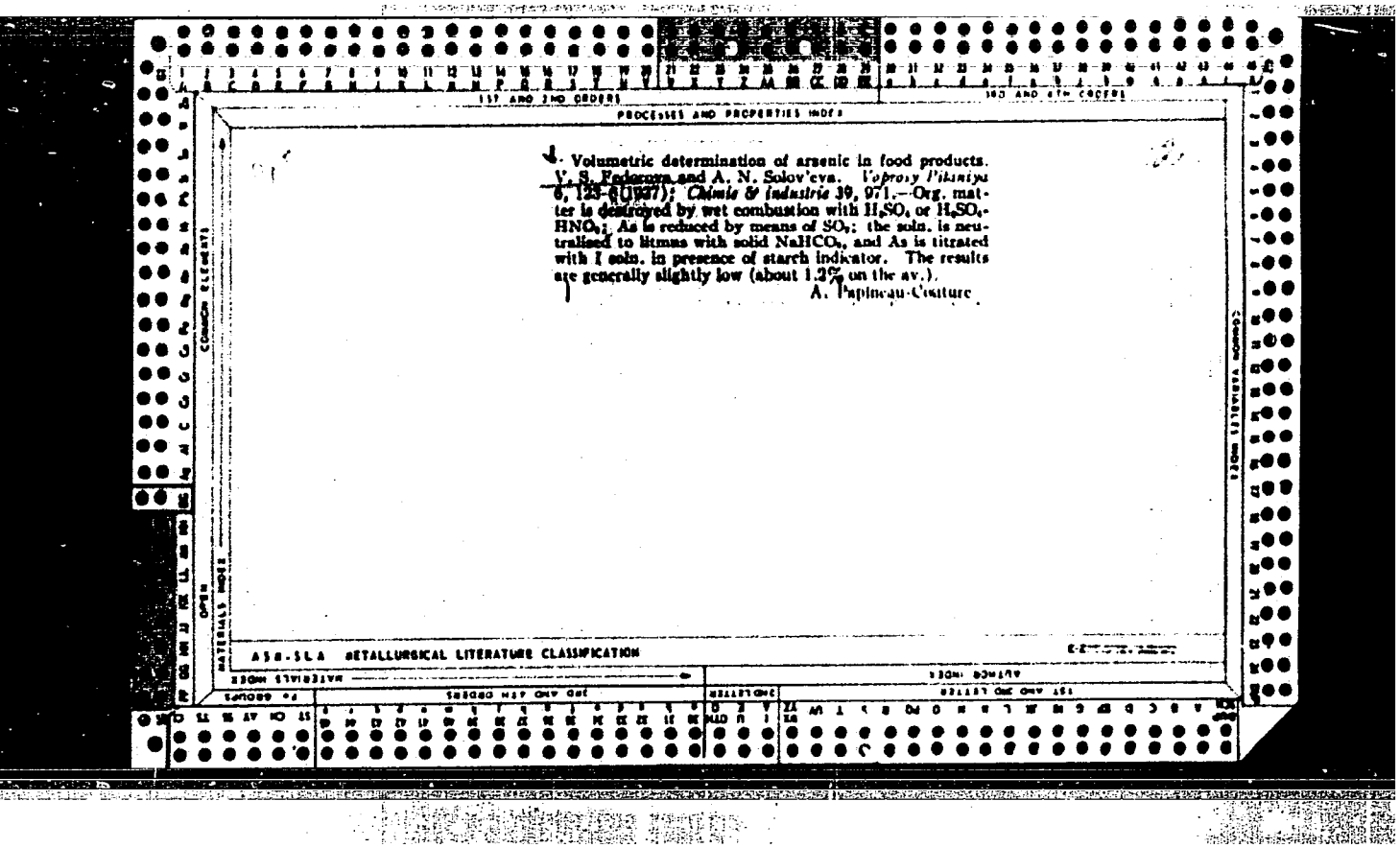


Ca

9

Orienting determination of lead in the tinning of iron and copper vessels. B. D. Ignat'ev and V. S. Fedorova. *Voprosy Pitaniya* 5, No. 2, [illegible]; *Chem. Zentr.* 1938, I, 1410-11.—After 0.05 g. of the scraped off tin coating is thoroughly cleaned with alc., about 0.5 cc. concd. HNO_3 is carefully poured over the metal and then evapd. in such a manner that the liquid does not boil. After the addn. of 1 cc. water it is again evapd. as long as water vapor and oxides of N are still evolved. One cc. 10% HOAc is then added to the residue and the whole filtered through cotton. Phenolphthalein is added to the filtrate and then 20% NaOH to give a violet tint; the soln. is warmed and again filtered through cotton. The filtrate, which contains the Pb, is neutralized with HOAc and 0.5 cc. 10% KI and 1 cc. H_2SO_4 are added. When more than 1% of Pb is present crystals of PbI_2 are obtained; a yellow color is obtained with about 1% Pb. W. A. Mowe

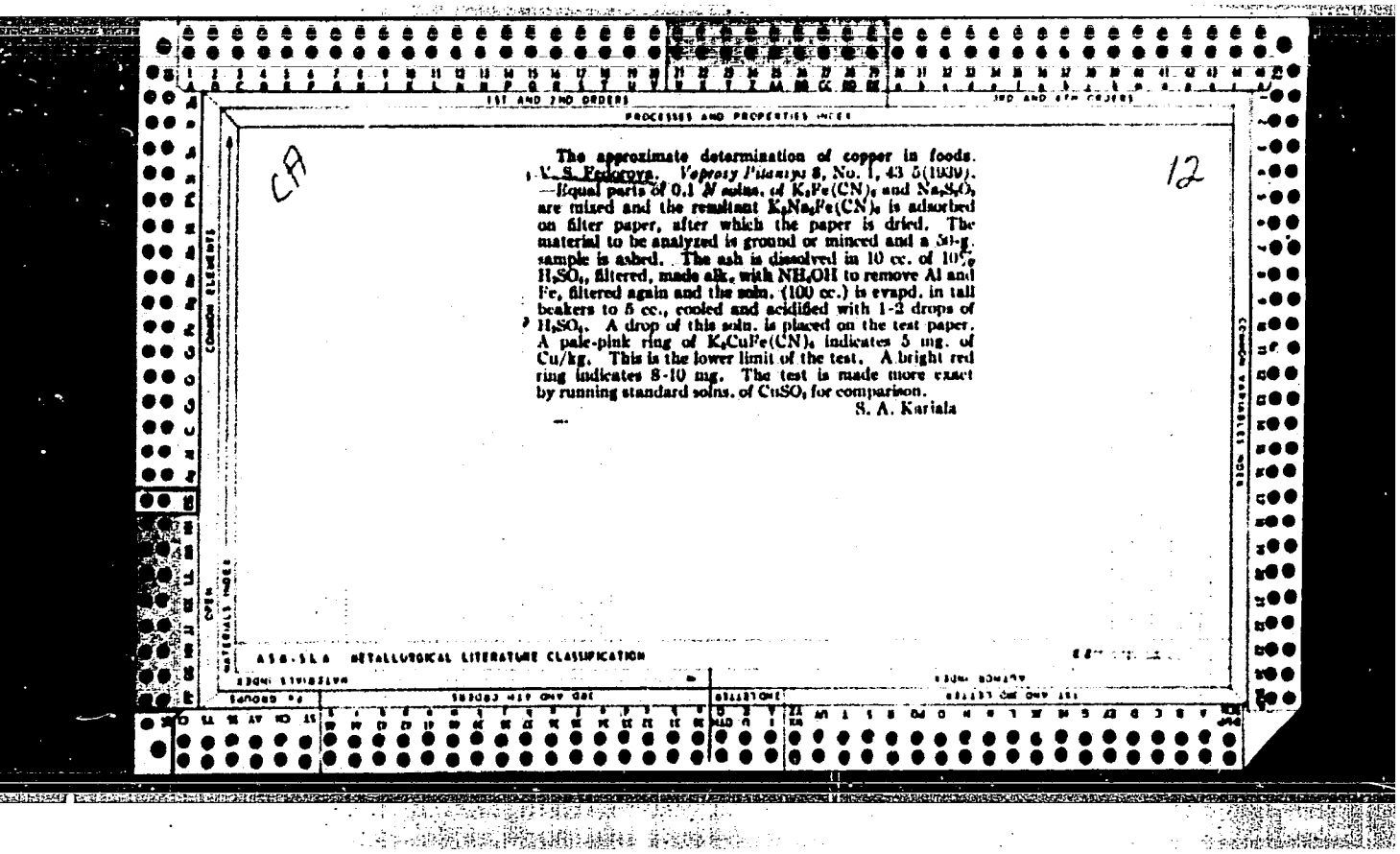
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

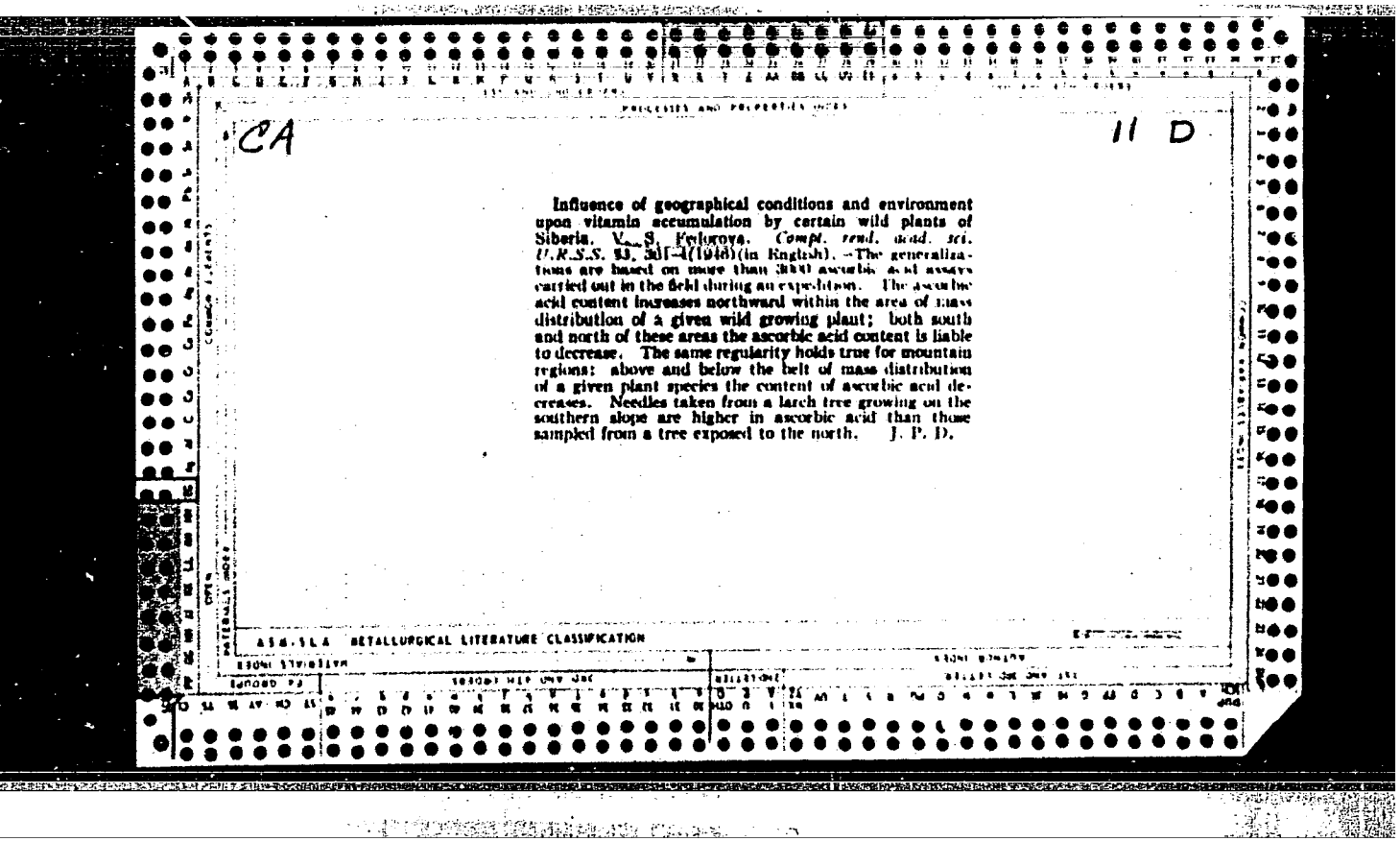
1. Volumetric determination of arsenic in food products. V. S. Fedorova and A. N. Solov'eva. *Voprosy Pitaniya* 6, 123-6(1937); *Chimie & Industrie* 39, 971.—Org. matter is destroyed by wet combustion with H_2SO_4 or H_2SO_4-HNO_3; As is reduced by means of SO_2; the soln. is neutralised to litmus with solid $NaHCO_3$, and As is titrated with I soln. in presence of starch indicator. The results are generally slightly low (about 1.2% on the av.).
A. Papineau-Couture

ASE-SLA METALLURGICAL LITERATURE CLASSIFICATION



The approximate determination of copper in foods. V. S. Fedotova. *Voprosy Pitaniya* 8, No. 1, 43-5(1939). —Equal parts of 0.1 *N* solns. of $K_4Fe(CN)_6$ and $Na_2S_2O_3$ are mixed and the resultant $K_2Na_2Fe(CN)_6$ is adsorbed on filter paper, after which the paper is dried. The material to be analyzed is ground or minced and a 50-g. sample is ashed. The ash is dissolved in 10 cc. of 10% H_2SO_4, filtered, made alk. with NH_4OH to remove Al and Fe, filtered again and the soln. (100 cc.) is evapd. in tall beakers to 5 cc., cooled and acidified with 1-2 drops of H_2SO_4. A drop of this soln. is placed on the test paper. A pale-pink ring of $K_2CuFe(CN)_6$ indicates 5 mg. of Cu/kg. This is the lower limit of the test. A bright red ring indicates 8-10 mg. The test is made more exact by running standard solns. of $CuSO_4$ for comparison.

S. A. Kariala



CA

11 D

Influence of geographical conditions and environment upon vitamin accumulation by certain wild plants of Siberia. V. S. Evlogova. *Compt. rend. acad. sci. U.R.S.S.* 53, 261–4 (1946) (in English). —The generalizations are based on more than 3000 ascorbic acid assays carried out in the field during an expedition. The ascorbic acid content increases northward within the area of mass distribution of a given wild growing plant; both south and north of these areas the ascorbic acid content is liable to decrease. The same regularity holds true for mountain regions: above and below the belt of mass distribution of a given plant species the content of ascorbic acid decreases. Needles taken from a larch tree growing on the southern slope are higher in ascorbic acid than those sampled from a tree exposed to the north. J. P. D.

FEDEROVA, V. S.

37712 O vitamine C v zhenskom moloke. Sbornik rabot po voprosam gigiyeny pitaniya Novosibirsk, 1949, s. 94-105. - Bibliogr: 8 nazv.

So. Letopis' Zhurnal'nykh Statey, Vol. 47, 1949

FEDOROVA, V.S.

Carotene in Siberian forage plants and its importance in livestock raising. Trudy Bot. sada Zap.-Sib. fil. AN SSSR no.1: 99-112 '56. (MIRA 14:7)
(Carotene) (Siberia--Forage plants)

USSR/Plant Physiology - Respiration and Metabolism. I.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 95654

Author : Fedorova, V.S.

Inst : Eastern ~~Affiliate~~ Siberian AS USSR

Title : On the Regularities of Vitamin C and Carotin Accumulation in Plants Growing Wild.

Orig Pub : Izv. vost. fil. AN SSSR, 1957, No 7, 119-121

Abstract : In the Altay in 1955 and in Khakassiye in 1956, the content of vitamins was determined in the larch cedar and willow herb, which grow on various vertical belts. The content of ascorbic acid and carotin in the needles or leaves increased with ascent into the mountains but only to the upper limits where the specie is widespread, after which it decreased. In addition, the accumulation of ascorbic acid proceeded at the expense of the reduced

Card 1/2

USSR/Plant Physiology - Respiration and Metabolism. I.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 95654

form with a simultaneous decrease of the acidic form.
The work was done at the West Siberian Affiliate AS
USSR. -- B.Ye. Kravtsova

Card 2/2

FEDOROVA, V.S.

Some data on factors influencing the accumulation of ascorbic acid and carotene in wild plants of Western Siberia. Trudy Bot. inst.Ser.6 no.7:351-352 '59. (MIRA 13:4)

1. Botanicheskiy sad Zapadno-Sibirskogo filiala AN SSSR, Novosibirsk.
(Siberia, Western--Plants--Chemical composition)
(Ascorbic acid) (Carotene)

FEDOROVA, V.S.; DEMINA, T.G.

Effect of trace elements on the vitamin content in corn leaves.
Trudy TSSBS no.4:107-112 '60. (MIRA 15:4)
(Corn (Maize)) (Vitamins)
(Plants, Effect of trace elements on)

FEDOROVA, V.S.

Effect of ionizing radiation on the accumulation of vitamins and monosaccharides in corn leaves. Trudy TSSBS no.4:123-127 '60. (MIRA 15:4)

(Corn (Maize)) (Vitamins) (Monosaccharides)

YEL'KINA, Ye.L.; [illegible], V.S.

Effect of microelements on the increase of frost resistance and the productivity of corn in Western Siberia. Trudy TSSBS no.7: 141-153 '64. (MIRA 17:11)

PETRUSHA, Z.A.; TRUFINA, L.F.; FEDOROVA, V.N.

Effect of sowing time on the yield and ascorbic acid content of rhubarb and dock. Trudy TSSBS no.7:154-159 '64.

(MIRA 17:11)

GUSEVA, V.N.; FEDOROVA, V.S.

Quality of fodder grasses in the drained bogs of Baraba. Trudy TSSBS no.7:160-163 '64. (MIRA 17:11)

FEDOROVA, V.S.; KUZ'MIN, V.V.

Apparatus for mass determination of carotene in plants. Trudy TSSBS no.7:209-211 '64.

(MIRA 17:11)

FEDOROVA, V. V.

"The White Sea Form of Sea Smelt." Cand Biol Sci, Leningrad State Pedagogical Inst, Leningrad, 1953. (RZhBiol, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13) SO: Sur. 508, 29 Jul 55

FEDOROVA, V.V.; POTAPOVA, T.P.; KRUZHALOV, B.D.

Preparation and conversion of dimethyl-(4-isopropylphenyl)-carbinol hydroperoxide. Zhur. prikl. khim. 38 no.1:166-170 Ja '65. (MIRA 18:3)

KHUZHALOV, B.D.; FEDOROVA, V.V.

Production of hydroquinone and n-isopropylphenol by oxidation of n-diisopropylbenzene in liquid phase. Khim.nauk i prom. 3 no.5:687 '58. (MIRA 11:11)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov.
(Hydroquinone) (Phenol) (Benzene)

FEDOROVA, V.V.; SERGEYEV, P.G.

Liquid phase oxidation of aliphatic-aromatic hydrocarbons by atmospheric oxygen. Oxidation of n-cymene and n-sec.-butyltoluene. Zhur.ob.khim. 28 no.9:2547-2551 S '58. (MIRA 11:11)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov Ministerstva khimicheskoy promyshlennosti SSSR.

(Cymene) (Oxidation) (Toluene)

FEDOROVA, V.V.; SERGEYEV, P.G.

Liquid phase oxidation of aliphatic-aromatic hydrocarbons by atmospheric oxygen. Oxidation of n-diisec.-butylbenzene. Zhur. ob.khim. 28 no.9:2552-2555 S '58. (MIRA 11:11)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov Ministerstva khimicheskoy promyshlennosti SSSR.

(Benzene) (Oxidation)

FEDOROVA, V. V.: Master Chem Sci (diss) -- "Liquid-phase oxidation of certain aliphatic-aromatic hydrocarbons and the properties of the hydroperoxides obtained thereby". Moscow, 1959. 8 pp (Min Higher Educ, Moscow Inst of Fine Chem Technology im M. V. Lomonosov) (KL, No 17, 1959, 106)

Fedorova, V. V.

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26756.

Author : Sergeyev, P.G.; Fedorova, V.V.
Inst : Academy of Sciences of USSR.
Title : Liquid Phase Oxidation of Aliphatic-Aromatic Hydrocarbons by Gaseous Oxygen.

Orig Pub : Dokl. AN SSSR, 1956, 109, No. 4, 796 - 797.

Abstract : At the oxidation of toluene by air at 110° in presence of Mn resinate as a catalyst and of isopropylbenzene as an initiator, the following is produced: $C_6H_5CH_2OOH$ (I) (maximum content 0.6% after 44 hours of oxidation), benzaldehyde separated in the form of 2,4-dinitrophenylhydrazone, melting point 233°, and benzoic acid (II). I is isolated by separating II, distilling toluene off at 20 - 21°/12 mm,

Card 1/2 Sci Res Inst Synthetic Alcohol & Organic Products

BELOKOVA, V.V.; SINOVICH, I.B.

Separating dihydroperoxide from the oxidation products of m-diisopropylbenzene. Neftekhimiia 4 no.5:772-776 S-O '64.

(MIRA 18:1)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov.

PAVLOVSKAYA, L.N., kand. tekhn. nauk; FEDOROVA, V.V., inzh.

Some problems of modeling the unsteady percolation of groundwater in a two-layer medium on electric grids of active resistance. Izv. VNIIG 76:169-184 '64. (MIRA 18:10)

FEDOROVA, V.V.; PAVLOV, G.P.; SINOVICH, I.D.

Preparation of 1,2,6-hexanetriol from acrolein. Neftekhimiia 3 no.2:259-266 Mr-Ap '63. (MIRA 16:5)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov.
(Hexanetriol) (Acrolein)

1. FRENKEL', G. L.: TIKHOMIROV, V. A.: FEDOROVA, Ye. A.

2. USSR (600)

4. Burns and scalds

7. Method of calculating relative extent of burned surface of human body. Novosti med. no. 24, 1951.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

FEDOROVA, Ye A

AUTHOR: Kamenichnyy, M. S. 131-58-6-11/14

TITLE: News in Brief (Kratkiye soobshcheniya). Production of Ultralight Refractory Products (Proizvodstvo ul'tralegkovesnykh ogneuporov)

PERIODICAL: Ogneupory, 1958, [illegible] Nr 6, pp. 284-285 (USSR)

ABSTRACT: In March 1958 a meeting took place at the Snigirevo Works for Refractory Products which had been called by the Department for Refractory Products of the Scientific-Technical Society for Metallurgy, and which was devoted to the problem of the mechanization of the production of ultralight refractory products. More than 60 persons took part in the meeting: representatives of the works for refractory materials, of the Leningrad Institute for Refractory Materials, as well as of other organizations. The following reports were heard:

1) Ye. A. Fedorova on the technology of the production of ultralight refractory products.
2) I. G. Ul'fskiy on machines for molding and grinding light refractory materials.

Card 1/3

Production of Ultralight Refractory Products

3) P. S. Potemkin on the drying and burning of refractory light products.

4) M. A. Rabinovich on the experience in the production of refractory light materials at the Snigirev works.

The isolation properties of these products are 2 - 3 times better than those of the other light refractory products. Experiments at the Leningrad Institute for Refractory Products carried out with ultralight refractory products (weight by volume 0,3 - 0,4 g/cm^2) showed that the heat losses decreased by 47 %, the heating period of the kiln by 26 %, and the output per hour increased per 19 %. The production of these products as well as of the usual foamy ones is based on the foaming of water suspensions of clay and chamotte. The mass of the ultralight products contains 80 % of clay and 20 % of chamotte, whereas the mass of the usual light products contains 10 % of clay and 90 % of chamotte. The drying of the ultralight products requires a mild regime and lasts 5 - 6 days. The shrinkage exceeds 15 % which easily causes cracks.

News in Brief.
Production of Ultralight Refractory Products

131-58-6-11/14

The burning of ultralight products takes place together with other products in annular kilns. The meeting decided upon recommendations for the mechanization of the molding process and the perfection of drying and burning. A further development of this production was recommended.

1. Refractory materials--Production 2. Industrial plants--Automation
3. Machines--Performance

Card 3/3

MIKHEYEV, Vadim Vladimirovich, prof.; FEDOROVA, Ye.A., red.;
PETROVA, N.K., tekhn. red.

[Textbook of nervous diseases] Uchebnik nervnykh boleznei. Izd.2., dop. i perer. Moskva, Medgiz, 1962. 505 p. (MIRA 15:5)
(NERVOUS SYSTEM—DISEASES)

KARKLIT, A.K., kand.tekhn.nauk; FEDOROVA, Ye.A., inzh.

Study of some highly refractory concretes. Trudy Inst. ogneup. no.29:52-89 '60. (MIRA 14:12)
(Refractory concrete)

STRUZER, L.R., kand. fiz.-matem. nauk; NECHAYEV, I.N.; BOGDANOVA, E.G.; FEDOROVA, Ye.A.

Methodology of correcting the precipitation norms of a period of several years. Meteor. i gidrol. no.11:43-50 N '65. (MIRA 18:11)

1. Glavnaya geofizicheskaya observatoriya.

MATVEYEVA, V.A.; FEDOROVA, Ye.A.

Critical survey of the number of days with frost on the soil surface. Trudy GGO no.174:35-41 '65. (MIRA 19:1)

ACC NR: AP7000656 SOURCE CODE: UR/0126/66/022/005/0721/0724

AUTHOR: Gen, M. Ya.; Yeremina, I. V.; Fedorova, Ye. A.

ORG: Institute of Chemical Physics, AN SSSR (Institut khimicheskoy fiziki AN SSSR)

TITLE: Preparation and crystal structure of finely dispersed Fe-Co alloy powders

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 5, 1966, 721-724

TOPIC TAGS: iron cobalt alloy, iron cobalt alloy powder, aerosol powder, METAL PRODUCTION, ~~finely dispersed powder~~, powder, property, IRON CONTAINING ALLOY, COBALT CONTAINING ALLOY, AEROSOL, METAL

ABSTRACT: The preparation of highly dispersed, homogeneous, pure powders of Fe-Co alloys of various composition and various particle size by the aerosol method has been investigated. The powders contained 0 to 100% Co with spherical particles $5 \cdot 10^{-6}$ and $1.6 \cdot 10^{-6}$ cm ad and were obtained by evaporation of Fe-Co alloy at 2100C in argon and helium under atmosphere pressure followed by condensation of metal vapors. The average diameter of particles obtained by evaporation in argon was $5.3 \cdot 10^{-6}$ and in helium, $1.6 \cdot 10^{-6}$. Increasing Co content changed the lattice structure of the particles from α-Fe lattice to α- and γ-Fe lattice and finally to the Co lattice. The lattice parameters are not constant and depend on the Fe-Co alloy composition. It was established that the lattice parameters of aerosols of Fe-Co alloys and of Fe and Co are smaller than those of solid metals and alloys and

 UDC: 548.735

ACC NR: AP7000656

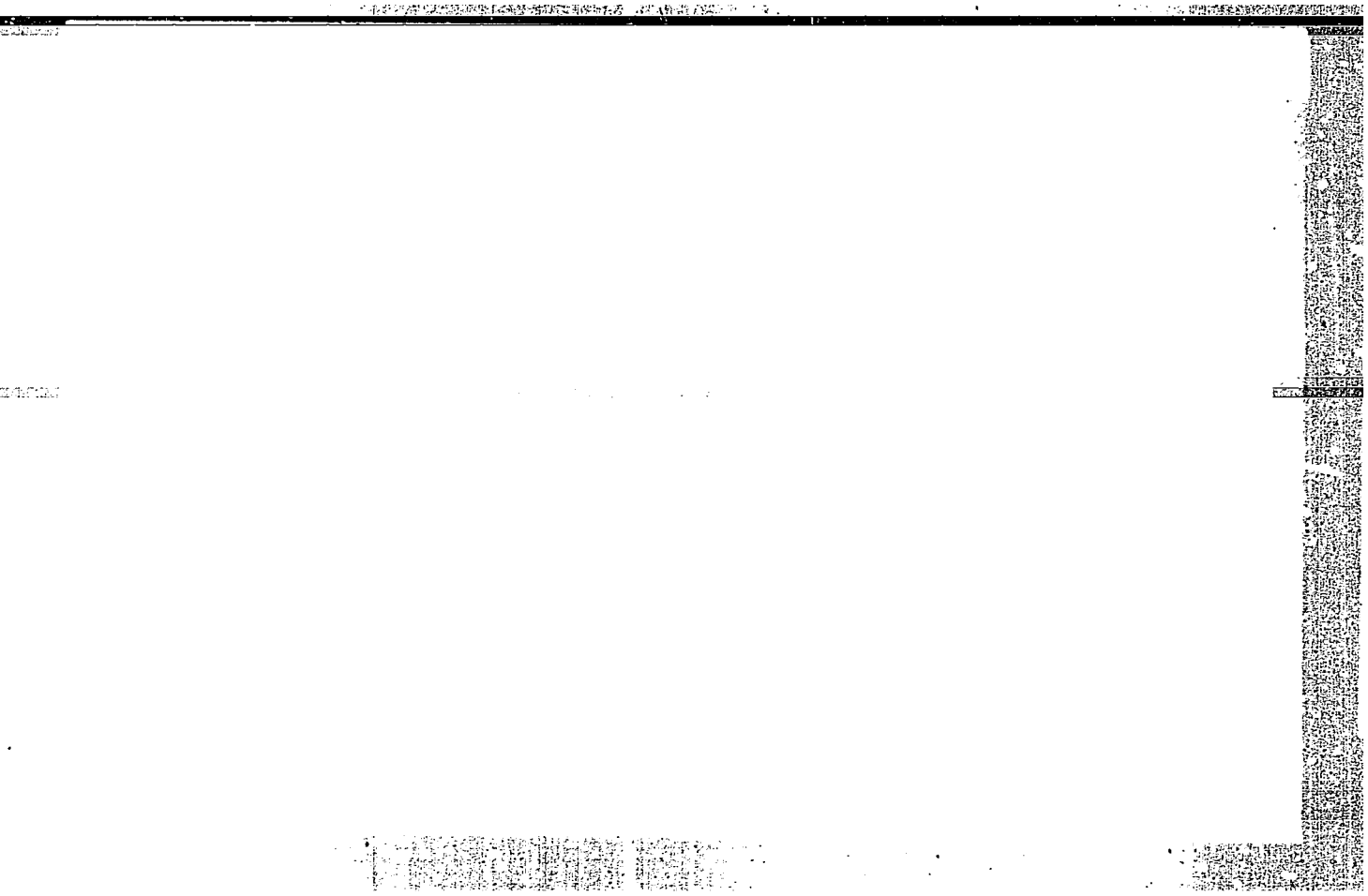
depend on the particle size. Curves were plotted of the dependence of powder composition and lattice parameters on Fe-Co alloy composition. Orig. art. has: 3 figures and 1 table.

SUB CODE: 11, 13/ SUBM DATE: 10Feb66/ ORIG REF: 007/ OTH REF: 004/

Card. 2/2

DOLGOPOLOV, Konstantin Vasil'yevich; FEDOROVA, Ye.F.; MIRONOV, B.P.; ANISHCHENKO, K.A.; POKSHINSEVSKIY, V.V., otv. red.; LYUBIMOV, I.M., red.; KONOVALYUK, I.K., mladshiy red.; KISELEVA, Z.A., Z.A., red. kart; VILENSKAYA, E.N., tekhn. red.

[Central Black Earth Region; economic and geographical characteristics] TSentral'no-chernozemnyi raion; ekonomiko-geograficheskaia kharakteristika. Moskva, Gos. izd-vo geogr. lit-ry, 1961. 414 p. (MIRA 14:10)
(Central Black Earth Region—Geography, Economic)



FEDOROVA, YE.F.

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TITLE: The Utilization of Natural and By-Product Gases (Prirodnyye i poputnyye gazy - na sluzhbu narodnomu khozyaystvu)

PERIODICAL: Priroda, 1958, Nr 8, pp 13-20 (USSR)

ABSTRACT: In the USSR, the chemical industry still uses agricultural raw material on a big scale. Natural and by-product gases are used as raw materials only in small quantities. The components of natural gas, like methane, propane, butane, pentane, etc. are especially useful for many syntheses. The composition of the by-product gases depends on the composition of the crude oil and the method of processing. The content of methane in these gases varies from 30 - 40%, ethane from 9 - 18%, ethylene from 4 - 23%, etc. In the light cracking of 1 ton of oil, 40 kg of gas are produced, in thermal cracking 200 kg, etc. The hydrocarbons of the methane gases are especially useful for synthetic purposes. They are decomposed by pyrolysis, i.e. by the action of high temperatures, to form acetylene which is the raw material for synthetic rubber, or acetaldehyde for the production of acetic acid, etc. A gas mixture of hydrogen and carbon is used in the synthesis of

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